ZASUKHA, P.F., kand.tekhn.nauk; IAZUTIN, A.G., inzh.; ZAVERYUKHA, A.Kh., inzh.; VOIEGOV, V.P., inzh.; FRANTSENYUK, I.V., inzh.

Selection of an efficient type of sheet rolling mill. Stal: 21 no.12:1090-1092 D '61. (MIRA 14:12)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov i Novolipetskiy metallurgicheskiy zavod. (Rolling mills)

ZAVERYUKHA H.V., inzhemer; VOIKOV, L.A., inzhemer.

Werk organization in the peuring bay of an open-hearth plant. Metallurg (MIRA 9:9) no.6:23-25 Je '56.

1.Zamestitel' nachal'nika martenevskoge tsekha He.l (for Zaveryukha).
2.Machal'nik issledevatel'skogo sektora OOT (for Velkev).3.Magniteger-skiy metallurgicheskiy kembinat.
(Open-hearth process)

PHASE I BOOK EXPLOIPATION

807/3942

- Zaveryukha, Nikita Vasil'yevich, Engineer, Abdrashit Museyevich Bigeyev, Candidate of Technical Sciences, Leonid Andreyevich Volkov, Engineer, and Aleksey Andreyevich Bezdenezhnykh, Candidate of Technical Sciences
- Razlivka stali v sovemennykh martenovskikh tsekhakh (Teeming of Steel in Modern Open-Hearth Furnace Plants) Sverdlovsk, Metallurgizdat, Sverdlovskoye otd-niye, 1959. 215 p. Errata slip inserted. 2,800 copies printed.
- Ed.: M.I. Panfilov; Ed. of Publishing House: N.N. Tsymbalist; Tech. Ed.: R.M. Matlyuk.
- PURPOSE: This book is intended for technical personnel of open-hearth furnace plants in the metallurgical and machine industries. It may also be useful to students of tekhnikums and schools of higher technical education.
- COVERAGE: The book reviews problems connected with the crystallization theory, the structure of ingots and ingot defects, their causes, and preventive measures. Modern methods of steel teeming are reviewed in detail, and equipment used at open-hearth plants is described. Work organization, automation and mechanization of certain processes, and safety measures are outlined. The following engineers Card 1/4

80V/3942 Teeming of Steel in Modern Open-Hearth Furnace Plants took part in the writing of the book: N.I. Lopukhov, V.M. Kalashmikov, and I.S. Tkachev. The authors also thank D.P. Strugovshchikov, Engineer, N.F. Dubrov, Candidate of Technical Sciences, A.N. Morozov, Doctor of Technical Sciences, and M.T. Panfilov, Engineer, for their assistance. There are 48 references: 42 Soviet (including one translation), 4 German, and 2 English. TABLE OF CONTENES: Foreword 3 5 Introduction Ch. I. Steel Ingot; Structure and Defects 1. Killed-steel ingot Rimmed-steel ingot and semi-killed-steel ingot
 Weight and shape of ingots 4. Basic ingot defects; means of prevention Ch. II. Methods and Technique of Steel Teeming 1. Temperature and teeming rate 2. Top pouring of steel 3. Bottom pouring of steel 4. Advantages and disadvantages of top and bottom pouring Card 2/4

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964010009-1"

ZAVERYUKHA, Nikita Vasil'yeyna, inzh.; BIGEYEV, Abdreshit Museyevich,
End.tekhn.nauk; VOIKOV, Leonid Andreysvich, inzh.; BEZDENEZHNYKH, Aleksey Andreysvich, kand.tekhn.nauk; PANFILOV, M.I.,
inzh., red.; TSYMBALIST, N.N., red.izd-va; MATLYUK, R.M.,
tekhn.red.

[Steel pouring in modern open-hearth furnace plants] Razlivka
stali v sovremennykh martenovskikh tsekhakh. Sverdlovsk, Gos.
nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii.
Sverdlovskoe otd-nie, 1959. 215 p.
(Open-hearth process) (Steel castings)

| "Training Requirements of Fighter-Pidots," representing a summary of the article "Against Formalism and Oversimplification of Pilots Training," Vest. Vozd. Flota, No.9, | | | | | | | | | | | | | | |
|--|------------------|--------|---------|-----------|--------------------|---------|-------|------|------------|-------|------|-----|----|--|
| pp 29-33, | rormaıı 1954. | en enc | Oversim | рт11 гсе | tion (|)1 F110 | te 1r | mmg, | V68 C. | rozu. | LIOU | що. | 7, | |
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ZAVERYUKHA, V.

AID P - 409

Subject

: USSR/Aeronautics

Card 1/1

Pub. 135, 5/17

Author

: Zaveryukha, V., Major

Title

: Against routine and simplification in pilot training

Periodical: Vest. vozd. flota, 9, 29-33, S 1954

Abstract

: The author stresses the necessity of revision of training standards for pilots in view of the increases in speed and altitude of flight due to jet propulsion. Examples are given, and names of officers mentioned.

Institution:

None

Submitted

: No date

247

AUTHOR:

Volkov, L.A. and Zaveryukha, N.V., Engineers at the Magnitogorsk Metallurgical Combiné.

TITLE:

Steel teeming ladles and their use. (Staleraslivochnye

kovshi i ikh ekspluatatsiya.)

PERIODICAL: "Metallurg" (Metallurgist), 1957, No. 1, pp. 37 - 39, (U.S.S.R.)

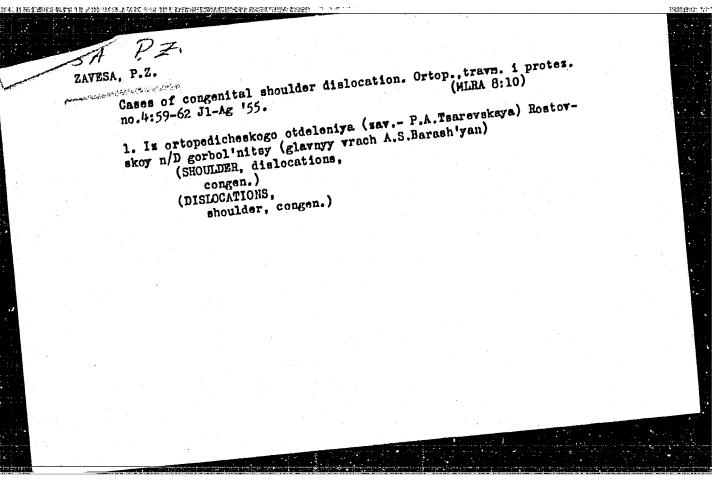
ABSTRACT:

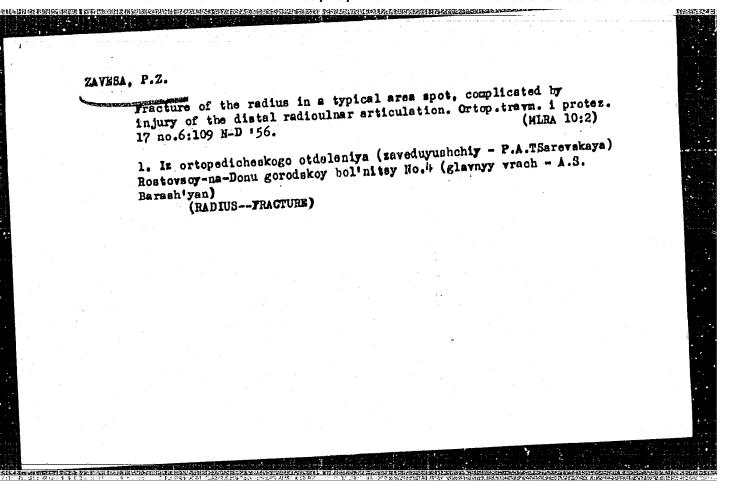
The inter-works school on steel teeming have compared ladle design at different works and made recommendations. They suggest that, in view of the satisfactory operation of Zaporozhstal teeming ladles with 15 tons less metalwork than the 40 tons of the standard design, there is room for improvement. Stopper mechanisms and tilting devices developed at Magnitogorsk (described in some detail) should become universal There was no standardisation of spout arrangement, some works having two and others one per ladle, and there were differences in nozzle practice. For relining and preparing ladles, Magnitogorsk practice (described in detail) was found to require 35 min. of crane time per ladle, whereas, at Novo Tagil, the figure was 75. The school recommend that all works should follow a strict time schedule for ladle inspection and maintenance and that all stopper mechanisms should have the handle on the "cold" side. 1 photo and 1 sketch.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964010009-1"

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ZAVESA, P. Z. Cand Med Sci -- (diss) "Fractures of the radius in typical Octable" complicated by injury of the lower radio-anconal joint, and their treatment." Rostov-on-Don, 1958. 19 pp (Rostov-on-Don State Med Inst), 200 copies (KL, 14-58, 117)

-105-

Injuries of the bursoligamental apparatus of the lower radioulnar joint in athletes. Ortop. traym. protez., Noskva 19 no.6:21-25 N-D '58. (MIRA 12:1) 1. Iz Nostovskogo-na-Domu gorodskogo vrachebno-fizkul'turnogo dispansora (glavnyy vrach - M.O. Zak). (FOREARM, wds. & inj. burso-ligamental appar. of lower radiculnar articulation in athletes (Rus)) (ATHLETICS, wds. & inj. sáme)

ZAVESA, PIZI, Cand Med Sci — (diss) "Fractures of the radius in a typical spot complicate by damage to the line and their treatment." Stalino, 1959, 18 pp (Stalino State Med Inst im A.M. Gor'kiy) 220 copies (KL, 35-59, 116)

- 61 -

Treatment of humeroscapular periarthritis with exygen insufflation.
Ortrop.traym.i protez. 21 no.3:36-38 Mr 160. (MIRA 14:3)

1. Iz ortopedicheskogo otdeleniya gorodskoy bol'nitsy No.4 (glavnyy vrach - A.S.Barash'yan) 1 Rostovskogo-na-Donu gorodskogo vrachebno-fizkul'turnogo dispansera (glavnyy vrach - M.G.Zak).

(ARTHRITIS) (OXYGEN THERAPY)

ZAVESA, P.Z., kand.med.nauk (Rostov-na-Donu, ul.Shaumyana, d.119, kv. 26)

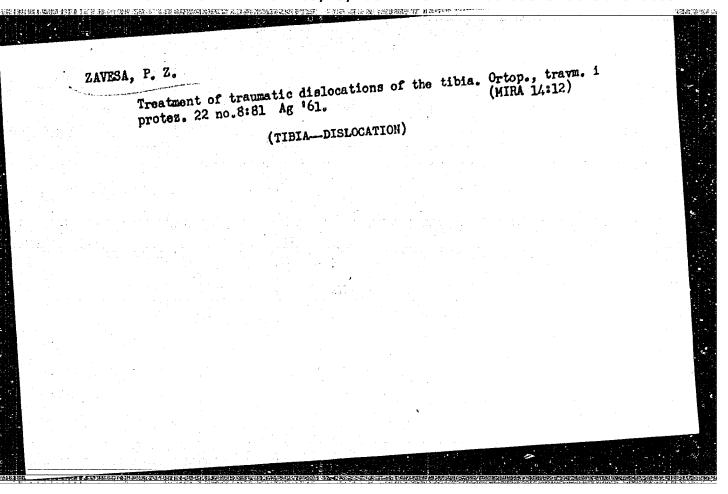
Oxygen therapy in arthrosis deformans and sequelae of internal injuries of the knee joint abstract. Ortop. travm.i protez. 22 no.1:31-22 (MIRA 14:5)

Ja '61.

1. Iz ortopedicheskogo otdeleniya (zav. - P.A.TSarevskaya) Rostovskoy-na-Donu gorodskoy bol'nitsy No.4 (glavnyy vrach - A.S.Barash'yan).

(XNEE-WOUNDS AND INJURIES)

(OXYGEN THERAPY)



APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964010009-1"

ZAVESA, P.Z., kand. mod. nauk

Abstracts. Ortop., trvam. i protez. 26 no.3:67 Mr '65.

(MIA 18:7)

1. Iz Uzbekskogo instituta travmatologii i ortopedii (dir. - kand. med. nauk B.A.kkhundzhanov). Adres avtora: Samarkand, Kommunisticheskaya ul., d.35, Meditsinskiy institut, kafedra travmatologii i ortopedii.

ZAVESIN, I. S. and BELOKUP, V. M.

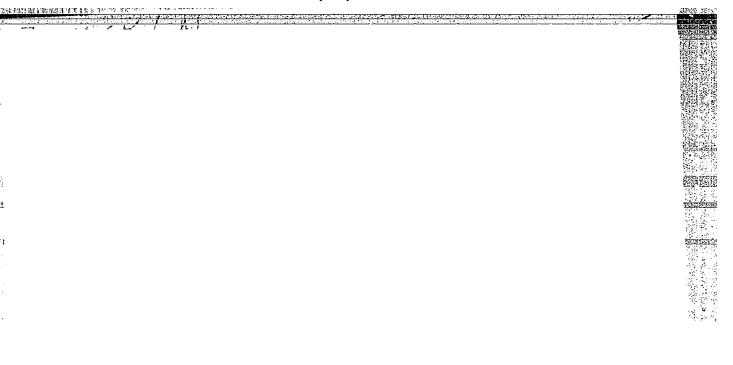
"Fixation of blood smears with carbolic acid solution."

So: Vet. 27 (7) 1950, p. 58

ZAVESKY, MILOSLAV

Lisovaci nastroje v praxi; prace a konstrukce nastroju k hromadne vyrobe ctrednich lisovanych soucasti. / Vyd. l. Praha, Prace; Vydavatelstvo ROH, 1952. 387 p. (Technicke prirucky Prace, sv. 113) / The operation of machine presses; the work and design of tools used in the mass production of medium-sized stamped parts. illus., diagra.

Accessions, Vol 3 No 3 Library of Congress Mar 54 Uncl



bringly dealt with in this article, and bear ZAVESKY, H. Stopping by filling the chambers excavated between levels in the Krusna Hora Mine. p. 132. RUDY. (Ministerstvo hutniho prumyslu a rudnych dolu) Praha. Vol. 4, no. 5, May 1956. APPROVED FOR RELEASE 103/15/2001 / Vociá-RBP86-00513R001964010009-1

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their I-8 Application. Ceramics. Glass. Binders. Concrete.

Ref Zhur-Khimiya, No 2, 1958, 5351.

Abs Jour

Viktora Eugen, Zavesky Vaclav.

Author

Not Given.

Inst Title Refractory Lining of Tubular Furnaces.

Orig Pub

Hutnicke listy, 1957, 12, No5, 417-423

Abstract

Consideration of questions pertaining to stabi-lity of refractory lining (RL) of rotary fur-naces for a direct production of Fe from ore. In view of the composition of the slag of this process it is recommended to utilize for RL pri-marily the semi-acidic refractories containing marily the semi-acidic refractories containing over 72% SiO; in addition, good results have

Card

ZAVESKY, Y .: VIKTORA, E.

Refractory linings of rotary furnaces for the blooming process. p. 417. (Hutnicke Listy, Vol. 12, No. 5, May 1957, Brno, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Unel.

CIA-RDP86-00513R001964010009-1 "APPROVED FOR RELEASE: 03/15/2001

ZAVESKY, VACLAY

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Application - Silicates. Glass. Ceramics. Binders.

Abs Jour

: Referat Zhur - Khimiya, No 4, 1957, 12614

Author Title

: The Problem of Testing Descussion and Evaluation of Zavesky Vaclav

Quality of Refractory Ceramic Materials Used in

Matallurgy

Orig Pub

: Problem zkouseni, posuzovania hodnoceni jakosti zarovzdornych keramickych staviv pro hutnicke ucely. Hutnicke listy 1956, 11, No 4, 257.265 (Czech; Russian, German, English

and French summaries)

Abstract

: Review and detailed comparison of Czechoslovak, Soviet and American methods for testing the properties of refractory materials (RM) used in metallurgy, namely: outward appearance, deviations in size, structure, refractoriness, chemical composition, volumetric and specific weight, porosity, deformation under stress at high

Card 1/2

- 88 -

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their I-9
Application - Silicates. Glass. Ceramics. Binders.

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 12614

temperature, 3 crit. compres, additional shrinkage, thermal stability (Czechslovak Standard CSN 1291-1938). A comparison is made of the classification of chamotte and high alumina (diasporore-containing) RM according to ASTM(USA) and CSN-1921-1944, standards, and data are presented on determination of properties of USA RM according to ASTM and CSN standards. Outlined are ways of improving testing procedures for RM in Czechoslovakia.

Card 2/2

- 89 -

ZAVETA, KRAEL

CZECHOSLOVAKIA / Magnetism. Ferromagnetism.

Abs Jour : Rof Zhur - Fizika, No 3, 1957, 6850

. Zaveta, Krael Author

Title

: Karlovy University, Prague, Czechoslovakia : Magnetization Curves of Thin Layers of Iron Inst

Orig Pub : Ceskosl. casop, fys., 1956, 6, No 3, 303 - 312

Abstract 1: The magnetization curves of thin layers of iron measuring from 125 to 7,870 A and obtained by evaporation in vacuum have been measured. A torsion magnetometer was used for the measurements. The curves showing the magnetization

work and the corresponding residual magnetization vs. the thickness display an anomaly in the 1,100 % thickness range. It was shown by weighing that the density of the

layer is less than the density of the metal.

: 1/1 Carc

> CIA-RDP86-00513R001964010009-1" APPROVED FOR RELEASE: 03/15/2001

CZECHOSLOVAKIA/Magnetism - Ferrites and Ferrimmgnetism.

Abs Jour

: Ref Zhur - Fizika, No 6, 1959, 13239

Author

: Baoz, J., Bergstein, A., Krupicka, S., Vintera, J.,

Zaveta, K.

Inst

: Institute of Technical Physics, Czachoslovak Academy of

Sciences, Prague, Czechoslovakia

Title

: Influence of the Method of Preparation on Certain Magne-

tic Properties of Manganese-Zinc Ferrite.

Orig Pub

: Chekhosl. fiz. zh., 1957, 7, No 1, 66-79.

Abstract

: The authors have investigated the influence of temperature and the annealing temperature on the magnetic properties of manganese-zinc ferrites with an excess of manganese. It was possible to correlate the ragnetic properties with the structure and chemical composition of the specimens.

Card 1/1

CIA-RDP86-00513R001964010009-1" APPROVED FOR RELEASE: 03/15/2001

CZECHOSLOWAKIA/Magnetism - Ferrites and Ferrimagnetism.

Abs Jour

: Ref Zhur -Fizika, No 6, 1959, 13243

Author

: Broz, Jaromir; Zaveta, Karel

Inst Title

: Concerning the Problem of the Study of the Temperature Dependence of Saturation Magnetization of Manganese-

Zinc Ferrites.

Orig Pub

: Ceskosl. casop. fys., 1957, 7, No 2, 217-219

Abstract : See Referat Zhur Fizika, 1958, No 1, 1174.

Card 1/1

CIA-RDP86-00513R001964010009-1 "APPROVED FOR RELEASE: 03/15/2001

F-4 CZECHOSLOVAKIA/Magnatism - Ferrites and Ferrimagnetism ZAVETA, K.

: Ref Zhur - Fizika, No 1, 1958, 1174 Abs Jour

: Broz Jaromir, Zaveta Karel

: Institute of Technical Physics, Czechoslovak Academy of Author Inst

Sciences, Progue.

: Contribution to the Study of the Temperature Dependence Title

of Magnetic Saturation of Manganese-Zinc Ferrites.

: Chekhosl. fiz. zh., 1957, 7, No 2, 242-244 Orig Pub

: In order to confirm the premises, set forth by the authors earlier, a study was made of the temperature dependence of Abstract

the saturation magnetization of almost-stoichiometric Mn-Zn ferrites with a small excess of Mn. In accordance with these assumptions, it was established that the different modes and the atmosphere of the preliminary and final sin-

tering lead to two types of dependences of the

Card 1/2

CZECHOSLOVAKIA/Magnetism - Ferrites and Ferrimagnetism

F-4

Abs Jour

: Ref Zhur - Fizika, No 1, 1958, 1174

magnetization of saturation on the temperature. One of the types of these dependences leads to a values $I_s(0) \sim 6.5$. B. This value is in good agreement with the theoretical value of the magnetic moment for the ferrite Mn $_{0.5}$ Zn $_{0.5}$ Fe $_{2.0}$ $_{1}$, in which the excess Mn is present in the form of Hausmanite Mn $_{3.0}$ $_{1}$, and with measurement data obtained by other investigators.

Card 2/2

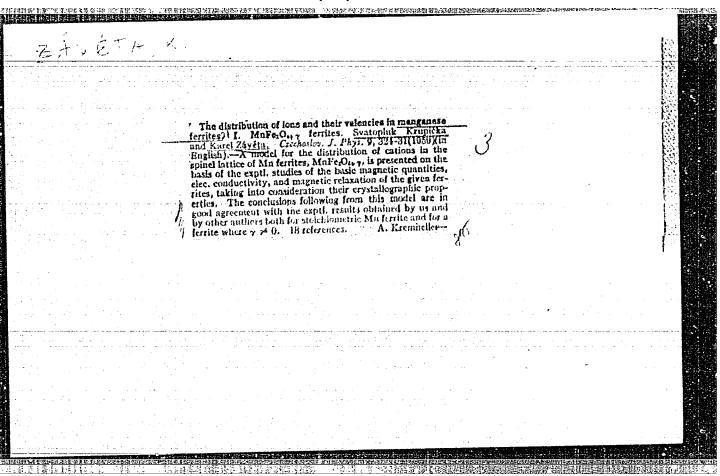
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ZAVETA, K.

Contribution to the study on thermal dependence of saturated magnetization in manganese zinc fer ities.

P. 217 (Ceskoslovenska Morfologie. Vol. 5, no. 1, 1957 Praha, Czechoslovakia)

Monthly Index of East European Accessions (EFAI) LC. Vol. 7, no. 2, February 1958



CZECHOSLOVAKIA/Magnetism - Experimental Methods of Magnetism.

Abs Jour

: Ref Zhur Fizika, No 12, 1959, 27533

Author

: Zaveta, Karel

Inst Title : New Methods of Measuring the Magnetocaloric Effect

in Ferromagnetic Semiconductors

Orig Pub

: Ceskosl. casop. fys., 1958, 8, No 5, 599-601

Abstract

: See Abstract 27532

主任主持机会性的工作。1992年,自然都在政治工程,自然企业的企业,但是是一个企业的企业的企业,但是是一个企业的企业的企业。

Card 1/1

- 61 .

cz/37-58-5-11/19 Závěta, Karel A New Method for the Measurement of the Magneto-AUTHOR: Caloric Effect in Ferromagnetic Semiconductors TITIE: (Nová metoda merení magnetokalorického efektu u ferromagnetických polovodičů) PERIODICAL: Československý Časopis pro Fysiku, 1958, Nr 5, pp 599-601 (Czech) ABSTRACT: The magneto-caloric effect is the change of temperature of a ferromagnetic material caused by rapid (adiabatic) magnetization. Weiss and Forrer (Ref 2) have found a change of temperature ΔT of 1°C as nickel was magnetized in a field of 10-20 K Oe. They measured the temperature with a thermocouple. As Clark and Sucksmith (Ref 4) have shown it is worked to see the contract of th shown, it is very difficult to apply this method to Ferromagnetic semiconductors show a strong change of resistivity with temperature. The magneto-caloric effect can be determined from measurements of resistivity, provided we deduct the change of resistivity with isothermal magnetization. The resistivity with isothermal magnetization. The new method was used on a cylindrical sample (d=8.6 mm, 1=15.5 mm) of manganous ferrite (composition: MnOFe203 + $0.08 \text{ Mn}_30_4 + 0.055 \text{ O Ref.5}$). The sample was held

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CZ/37-58-5-11/19
A New Method for the Measurement of the Magneto-Caloric Effect in Ferromagnetic Semiconductors

between two electrodes, one of which contained a thermocouple, inside a furnace. The furnace with the sample was placed in a magnetic field of 5500 Oe perpendicular to the axis of the sample. The resistance was measured with a Wheatstone bridge. The measured magneto-caloric effect is plotted as a function of temperature in Fig.2. The effect has a maximum at the Curie temperature. The advantage of the described method is mainly that it uses an effect throughout the bulk of the material, rather than limiting itself to a single point in the material as the measurement with a thermocouple. If the material under investigation is a poor thermal conductor, a thermocouple also introduces errors by its own thermal conductivity. Drs. J. Brož, S. Krupička and J. Šternberk made helpful suggestions.

Card 2/3

CZ/37-58-5-11/19

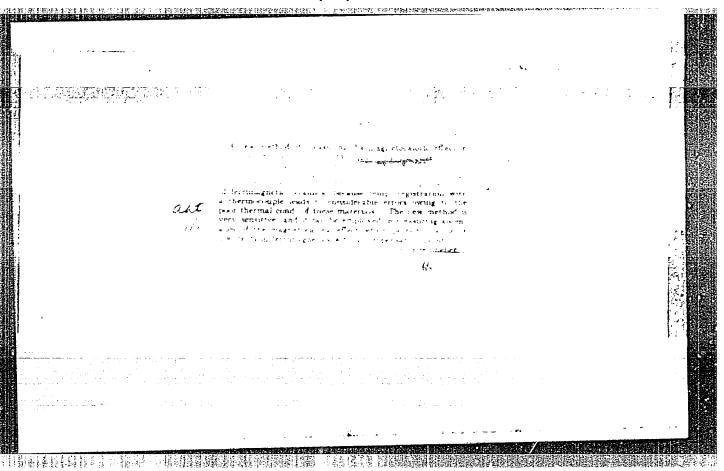
A New Method for the Measurement of the Magneto-Caloric Effect in Ferromagnetic Semiconductors

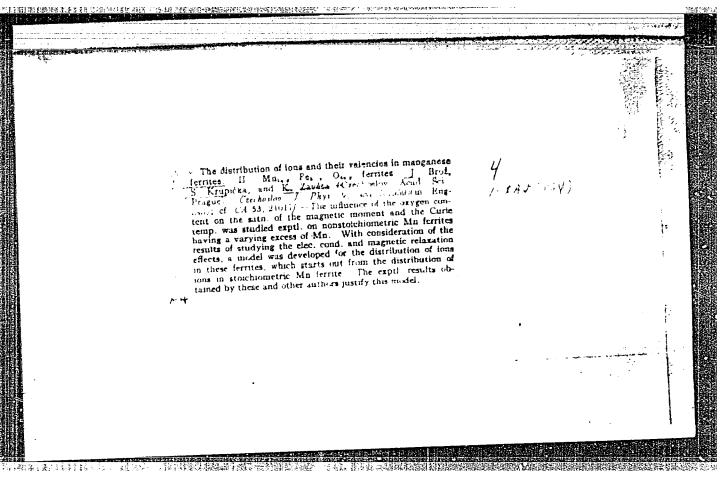
There are 2 figures and 7 references, 2 of which are Czech, 1 Russian, 3 English, 1 French.

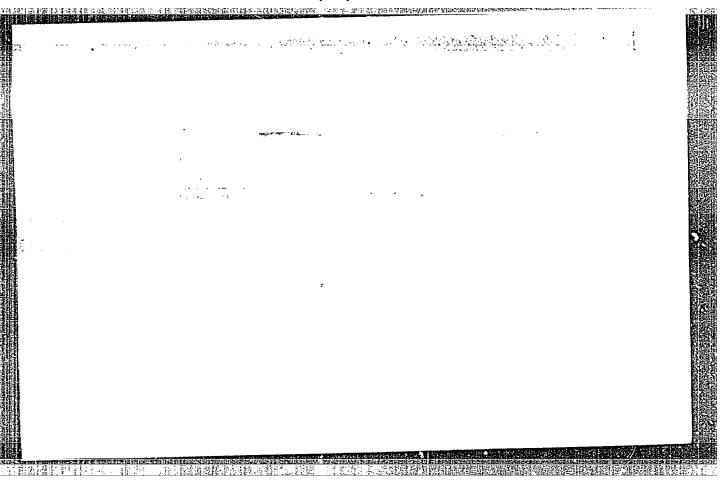
ASSOCIATION: Ústav technické fysiky ČSAV, Praha (Institute for Technical Physics, Czech Ac.Sc., Prague)

SUBMITTED: March 19, 1958

Card 3/3







\$/181/60/002/01/23/035 B008/B014

24.2200

AUTHOR:

Zaveta, K.

Measurement of Galvanometric Properties of Ferrites

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 1, pp. 106-108

TEXT: In measuring galvanometric properties of polycrystalline and monocrystalline manganese ferrites K. P. Belov and his co-workers (Refs. 1 and 2) detected an anomaly of the temperature dependence of the relative

 $\left(\frac{\Delta R}{R}\right)$ in the range of the Curie variation of the electrical resistance point. This statement, which contradicts Parker's data (Ref. 4), was is represented as a function of H

checked by the author. $\left(\frac{\Lambda R}{R}\right)_{T\to 0}$ (Curve a) and $H^{2/3}$ (Curve b) (T - absolute temperature; H - magnetic field) (Fig.). This dependence was derived from data supplied by K. P. Belov and Ye. V. Talalayeva for polycrystalline manganese ferrite (Ref. 1). The course taken by these curves indicates the adiabatic nature of the

change in resistivity measured by the above-mentioned authors. The

Card 1/2

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Measurement of Galvanometric Properties of Ferrites

S/181/60/002/01/23/035 B008/B014

anomalous temperature course of $\left(\frac{\Delta R}{R}\right)$ found in the range of the Curie point may be ascribed to a magnetocaloric effect. The author thanks I. Shternberk for his discussion. There are 1 figure and 8 references, 3 of which are Soviet.

ASSOCIATION: Chekhoslovatskaya Akademiya nauk (Czechoslovakian Academy of Sciences). Institut tekhnicheskoy fiziki, Praga (Institute of Technical Physics, Prague)

SUBMITTED: April 14, 1959

W

Card 2/2

Z/037/60/000/02/009/018 E073/E335

AUTHOR:

Závěta, Karel

Electrical Properties of Ferrites with Spinel Structure

Československý časopis pro fysiku, 1960, Nr 2, PERIODICAL:

pp 147 - 161

TITLE:

ABSTRACT: In this paper the results are reviewed and interpreted of investigations of the electrical conductivity in ferrites based on published information, including published and unpublished work of the author (a total of 83 references). In the introduction, Chapter 1 (pp 148-150) some crystallographic concepts are defined and the basic magnetic properties of the ferrites are summarised. Chapter 2 (pp 150 - 154) deals with the electrical properties of ferrites in DC fields (temperature dependence of the DC conductivity, electrical conductivity in the neighbourhood of the Curie point). The electrical properties of magnetite are discussed in detail since they form the basis for interpretation of the mechanism of conductivity of most ferrites. Chapter 3 (pp 154 - 156) deals very briefly with the electrical properties of ferrites in AC fields,

Card1/3 describing in the first instance measured frequency-

Z/037/60/000/02/009/018
Electrical Properties of Ferrites with Spinel Structure

dependence of the electric conductivity and of the dielectric constant. Chapter 4 (pp 156 - 159) concerns special problems of the electric conductivity in ferrites. In discussing ferrites containing manganese the author also mentions Ni-Zn ferrites, in which the change of valency probably takes place between ions other than those of bivalent and trivalent iron. In the latter part of this chapter the methods are briefly summarised which lead to a reduction in the conductivity, which is highly desirable in ferrites for microwave applications. In the conclusions, the author emphasises that the basic condition for investigation of the electrical properties is the availability of accurately defined systems of equations with a single variable parameter. Therefore, it is necessary to devote in future even more attention to the study of ferrite single crystals in which many difficulties can be obviated which occur in non-homogeneous structures of polycrystalline ferrites produced by ordinary ceramic methods. Furthermore, thermo-electric and magneto-electric studies have to be

Card2/3

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Electrical Properties of Ferrites with Spinel Structure

extended considerably. Acknowledgments are expressed to Professor Doctor J. Broz and Doctor S. Krupička for their comments on this review paper. There are 83 references, of which 13 are Czech, 4 are German, 2 Swiss, 6 Soviet, 2 French and 56 English.

ASSOCIATION: Ústav technické fysiky ČSAV (Institute of Technical Physics, ČSAV)

SUBMITTED: February 13, 1959

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9.4300 (1137, 1147, 1155)

B/181/61/003/003/020/030 B102/B205

AUTHOR:

Zaveta, K.

TITLE:

Galvanomagnetic effect in ferrites near the Curie point

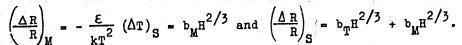
PERIODICAL:

Fizika tverdogo tela, v. 3, no. 3, 1961, 856-860

TEXT: In a previous paper (Ref. 1: FTT, II, 106, 1960), the author has pointed out that measurement of the galvanomagnetic effect in ferrites near the Curie point is cumbersome because the maximum of the magnetocaloric effect lies in this range of temperatures. An attempt has now been made to solve several problems related to the adiabatic and isothermal galvanomagnetic effects with the help of new experimental material. Theoretically, these problems have already been treated by K. P. Belov et al. (FTT, III, one 2, 1961). In the first part of the present paper, the author discusses the theoretically formulated relationships between the electrical resistance, the external magnetic field, and the activation energy £(H) with reference to results published by Belov, Belov and G. A. Zaytseva, as well as V. L. Ginzburg. After several calculations and considerations, the following relation is obtained for the relationship between magnetic field and magnetization at the Curie point 0 in accordance with the results of Belov:

Card 1/3

Galvanomagnetic effect ...



 $\mathbf{b}_{\mathbf{m}}$ and $\mathbf{b}_{\mathbf{M}}$ are material constants which cannot be determined theoretically, not even relatively. The experimental values obtained by Belov deviated considerably from those found by the present author. Measurements of the galvanomagnetic properties of manganese-zinc ferrites near the Curie point in fields of 3-10 oe, carried out by the present author, have shown that formula (6) is correct. This was found to hold for both the adiabatic and the isothermal, longitudinal, galvanomagnetic effect. A discussion of the measurement of galvanomagnetic effects in ferrites near 9 has shown that the activation energy of the electrical conductivity is independent of the magnetic field. Thus, the measurement of resistivity can be divided into a part corresponding to isothermal variations of the field and a part corresponding to the temperature variations which depend, not on the procedure, but only on the initial and final states. Both the isothermal and the adiabatic galvanomagnetic effect are linear functions of $H^2/3$. It could be further shown that the change in resistivity due to a magnetocaloric rise of temperature for polycrystalline manganese-zinc ferrites is Card 2/3

20794

8/181/61/003/003/020/030 B102/B205

Galvanomagnetic effect ...

about as great as the longitudinal, isothermal, galvanomagnetic effect. Ye. V. Talalayeva is mentioned. There are 2 figures and 12 references: 9 Soviet-bloc and 3 non-Soviet-bloc.

ASSOCIATION: Chekhosovatskaya Akademiya nauk Institut tekhnicheskoy fiziki

Praga (Czechoslovakian Academy of Sciences, Institute of

运行。"《中华日建建区对于智度对约约的第三人称形式,并通过第一个工作。这一次,是自己的主要的工作,但是这种国际的工作,而且是是通过的现在分词,但是他的工作,也是

Technical Physics, Prague)

SUBMITTED:

July 25, 1960

Card 3/3

24.1900

P/019/61/010/001/006/006 D265/D305

AUTHURS:

Zitka, B., Zavětá, K., and Lachowicz, H.

TITLE:

Contribution to investigation on the mechanism of

magnetization reversal in ferrites

PERIODICAL: Archivum elektrotechniki, v. 10, no. 1, 1961, 281-294

TEXT: This paper provides an analysis of the experimental results carried out on a toroidal core made of the ferrite of type Mn_{0.556} Mg_{0.608}Fe_{1.845}O₄. The method was based on plotting the family of hysteresis loops for the material by taking the static measurements carried out by hellistic method and then subjecting the core to a

hysteresis loops for the material by taking the static measurements carried out by ballistic method and then subjecting the core to a pulsating magnetic field. The precautions taken during the experiments, and the methods of obtaining the results which are then analyzed are described. It is concluded that the hysteresis loops obtained under dynamic magnetization conditions are wider and more rectangular than the static ones; the switching time depends on the field strength and the initial magnetic state of the material

Card 1/2

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P/019/61/010/001/006/006 Contribution to investigation on ... P/019/61/010/001/006/006

and the subsequent flux density. The authors announce further research into the coercive force region of the hysteresis loop for various ferrites used in mathematical computer application. There are 11 figures and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: N. Menyuk, J.B. Goodenough, J. Appl. Phys., 26, 8, 1955.

ASSOCIATION: Ústav technické fysiky ĆSAV - Praha (Technical Physics Institute, Czechoslovak AS - Prague)(B. Zitka, K. Zavěta); IPPT PAN (IPPT PAS) (H. Lachowicz)

SUBMITTED: March 18, 1960

Card 2/2

| Galvanomagnetic effect in ferrites in the region of the Curie point. Fiz. tver. tela 3 no. 3:856-860 Mr '61. (MIRA 14:5) | | | | | | | | | | | |
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| 1. Chekhoslovatskaya Akademiya nauk Institut tekhnicheskoy fiziki, Praga. | | | | | | | | | | | |
| | (Magnetic fields | (Ferrates) | | | | | | | | | |
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"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001964010009-1

s/196/62/000/010/007/035 E073/E155

AUTHOR:

Závěta, K.

TITLE:

Comments on the electrical conductivity of Mn-Zn

forrites

PERIODICAL: Referativnyy zhurnal, Elektrotokhnika i energetika, no.10, 1962, 3, abstract 10 B16. (Czechosl. J. of

Physics, Bl1, no.5, 1961, 376-378). (English)

On eight Mn-Zn ferrite specimens the temperature TEXT: On eight Mn-2n territe specimens the temperature dependences of ρ between 20 and 120 °C, and of the initial value of μ were investigated. Some of the specimens displayed an anomaly in the dependence of ρ at Θ: either a change in the inclination of the straight line lg ρ (1/T) or its parallel displacement (without any change in the activation TEXT:

energy).

[Abstractor's note: Complete translation.]

Card 1/1

ZAVETA, K.; SVIRINA, Ye.; MALIKOVA, O.

Effect of thermal treatment on the electric properties of manganese ferrate single crystals. Fiz.tver.tela 4 no.12: 3593-3595 D '62. (MIRA 15:12)

1. Moskovskiy gosudarstvennyy universitet im.M.V.Lomonosova.

(Manganese ferrate crystals—Electric properties)

(Metals, Effect of temperature on)

and the control of th

SIMSA, Z.; ZAVETA, K.

Note on the electric conductivity of ferrites at low temperatures. Chekhosl fiz zhurnal 13 no. 6: 471-473 '63.

1. Ustav fyziky pevnych latek, Ceskoslovenska akademie ved, Praha.

34767-66

ALC NRI AP6026280

SOURCE CODE: C2/0037/65/000/004/0340/0347

AUTHOR: Gorbor, Richard; Vilin, Frantisok; Zavota, Karel

ORG: Institute of Solid State Physics, CSAV, Prague (Ustre Tysica pevnych late CSAV)

TITIE: Low temperature measurements with a carbon thermometer

SOURCE: Coskoslovensky casopis pro fysiku, no. 4, 1965, 340-347

TOPIC TAGS: thermometer, temperature measurement, carbon resistor

ABSTRACT: The paper discusses the choice of method for measuring temperatures in a range of roughly 2-90°K. The region of applicability and the accuracy in determination of the temperature with a carbon thermometer are found by evaluating the results of measurements of the temperature dependence of the carbon resistor. The authors thank Doctor A. Linek, UFPL, for help in preparing the program and for his advice with the calculations. Orig. art. has: 3 figures and 5 formulas. Rased on authors Eng. abst. IPRS

SUB CODE: 14, 09 / SUBM DATE: 12 Dec64 / SOV REF: 001 / OTH REF: 011

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| ACC NR. AP6010764 SOURCE CODE: GE/2030/66/014/001/00K9/0K13 19 | |
| AUTHOR: Zaveta, K.; Trinkler, E. I.; Zounova, F. OR | |
| ORG: [ZAVETA; ZOUNOVA] Institute of Solid State Physics Czechoslovak Academy of Sciences, Prague; [TKINKLER] Institute of Physics, Academy of Sciences of the | |
| Latvian SSR, Riga | |
| TITIE: Magnetic after-effect spectrum of Mn ferrites from 4.2 to 300K | |
| SOURCE: Physica status solidi, v. 14, no. 1, 1966, K9-K13 | |
| TOPIC TAGS: magnetic effect, polycrystal, liquid helium, ferrite, manganese, manganese ferrite | |
| ABSTRACT: The purpose of the present study is to extend the data on magnetic spectra obtained in earlier studies (S. Krupicka, Czech. J. Phys. Bl4, 29, 1964; A. Braginski and T. Merceron, Nature 191, 698, 1961; S. Krupicka and F. Vilim, Czech. J. Phys. 7, 723, 1957) to the temperature range 4.2 to 70K. In this study the measurements were made on toroidal polycrystalline samples with a mean diameter of 12 to 14 mm of the system MnxFe3-xOl, (with x = 0.95, 1.06 and 1.17). The complex permeability was measured by means of a resonance bridge at frequencies 75, 150, 300, and 600 kc. Disaccommodation measurements were made with the same bridge, and the results were checked at 75 and 150 kc. The cryostat employed was similar to that described by R. Gerber, F. Vilim, and K. Zaveta. [Cs. cas. fys. 15, 340, 1965]. The temperature of | |
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| и Ръзвіса status solici, т. 14, nn. 2, 1966, | 485=4°H |
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ZAVGCRODNIY, A.F.; SEREDA, G.T.; BABRIKO, G.N.

Seav. pinching in viticulture. Agrobiologica no.4:154-156 J1-Ag '57.

(MLRA 10:9)

1. Charyanskiy sel'sko-khozyayatvonnyy telinikum. (Viticulture)

ZAVGORODNIY, A. L.

Mathod of determining mean values from isoline charts. Vest. AN Kazakh. SSR. 19 no.8:63-79 Ag 163. (MIRA 17:7)

21, 1000 26,2240 26367 B/089/61/011/002/003/015 B102/B201

AUTHORS:

Klimenkov, V. I., Zavgorodniy, A. Ya.

TITLE:

Energy stored in the graphite of an MP(IR) reactor

PERIODICAL:

Atomnaya energiya, v. 11, no. 2, 1961, 126-132

TEXT: A study has been made of storage and distribution of latent energy in the graphite of an IR reactor. The investigation was conducted on samples from graphite blocks taken from the reactor during disassembling, and also on samples taken by a special drill in the course of two years after disassembling of the graphite assembly. During this time the reactor worked with a mean power of 50 Mw and with a graphite temperature in the center of the brick-work ranging between 400 and 600°C. The integral thermal neutron flux in the center was 6.7·10²¹ n/cm². The samples extracted with a drill were cylindrical, 50 mm long, and 10 mm in diameter. The largest samples were 25 mm long and 28 mm in diameter. The characteristics of the liberation of latent energy were examined with the aid of a vacuum liberation of latent energy were examined with the aid of a vacuum calorimeter by the method of two successive heat treatments with constant calorimeter by the electric heater warranted a heating rate of 13°C/min

Card 1/8

---26367 8/089/61/011/002/003/015 B102/B201

Energy stored in the graphite ...

(without liberation of latent energy). The sample temperature was measured with thermocouples and recorded by an automatic potentiometer of the type 300-09 (EPP-09); this device is able automatically to record a maximum rate of 150°C/sec. The latent energy was obtained by comparing the curves of two successive heatings of irradiated samples. Fig. 3 presents curves characterizing the liberation of latent energy: q = f(T), dq/dT = f(T); $q = kW\Delta t/p$, where W is the constant heating power, Δt is the duration of heating, p is the weight of the sample (in grams), and k is the equivalent of the calorimeter. The samples were heated in the vacuum calorimeters between 600 and 650°C. The error in the determination of the total latent energy was about 50 cal/g. The maximum energy liberated on heating to 600°C was 125 cal/g, and the total latent energy amounted up to 540 cal/g, which is in good agreement with data found earlier. For samples taken two years after disassembling (integral thermal neutron flux: $\sim 3 \cdot 10^{20}$ n/cm²; temperature $\sim 100^{\circ}$ C), the total latent energy was found to be 320 cal/g. A new fact was that the rate of energy liberation rose strongly on heating to high temperatures (350-600°C and over). It was double the amount of specific heat of graphite. The distribution of latent energy had already been the subject of a report by B. V. Brokhovich at the Second Geneva Atomic Card 2/8

26367

8/089/61/011/002/003/015 B102/B201

Energy stored in the graphite ...

Conference (1958). The observed drop of latent energy with growing graphite thickness is related to the variation of the neutron spectrum and of the graphite temperature. Results are in good agreement with those obtained by Dickson et al. A study of the hazard resulting from the liberation of latent energy showed values between 0.33 and 0.25 cal/g-deg for the mean rate of energy liberation with the maximum latent energy being taken to be 540 cal/g; this value is lower than the specific heat of graphite (0.36 cal/g). The spontaneous heating of graphite due to liberation of latent energy is a source of hazard for aluminum tubes and for the envelopes of uranium lumps. Investigation results showed, in agreement with those obtained on the BEPO reactor, that the conditions under which latent energy is 'liberated, are almost adiabatic. There are 4 figures and 9 references: 5 Soviet-bloc and 4 non-Soviet-bloc. The four references to English-language publications read as follows: Nucl. Engng. 2, No. 20, 453 (1957); Nucleonics, 15, No. 12, 43 (1957); Dickson et al., Paper No. 1805, Second Geneva Conference, 1958; Cottrell et al., Paper No. 2485, Second Geneva Conference, 1958.

February 20, 1961 SUBMITTED:

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964010009-1"

We will have the frame furnished by the opening of the Party Congress. Na stroi. Ros. no.7:15-16 Jl '61. (MIRA 14:8) 1. Glavnyy inzhener stroitel'no-montazhnogo upravleniya No.2 tresta Gor'kovgesstroy No.6. (Gorkiy--Precast concrete construction)

B-10

LAVELOTI, The

CZECHOSLOVAKIA/Physical Chemistry - Radiation Chemistry.

Photochemistry. Theory of the Photographic Process.

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 24270

Author

Inst

Zavetova Milena

Title

Concerning the Photoconductivity of Photographic Emulsions

Orig Pub

: Coskosl. casop. fys., 1957, 7, No 3, 272-278; Chokhosl.

fiz. zh., 1957, 7, No 3, 327-334

Abstract

: Dark conductivity of the emulsion gel is ascribed to motion of inter-pointal Ag+ions in AgBr crystals, and also of Agt ions weakly bound to the surface of crystals and passing therefore into the surrounding electrolyte. On illumination of gels a negative photo-effect is observed which is attributed to recombining of photoelectrons with the carriers of the current (Ag+) resulting in the formation of Ag atoms. In the dry layers there is obser-

ved a positive photo-effect which is attributed to

Card 1/2

ZAVETOVA, MILENA

CZECHOSLOVAKIA/Optics - Photography

K-13

Abs Jour: Ref Zhur - Fizika, No 6, 1958, No 14657

Author : Zavetova Milena

Inst

: Not Given

Title

: Concerning the Problem of the Influence of Aging on the Sen-

sitivity and Fog of Photosensitive Emulsions.

Orig Pub : Ceskosl. casop. fys., 1957, 7, No 4, 449-451

Abstract : See Abstract 14656.

Card : 1/1

41

CZECHOSLOVAKIA/Optics - Photography

Abs Jour : Paf Zhur - Fizika, No 6, 1958, No 14656

Author

: Zavetova Milena

Inst

: Not Given

Title

: Concerning the Problem of the Influence of Aging on the Sen-

sitivity and Fog of Photosensitive Emulsions.

Orig Pub : Chekhosl. fiz. zh., 1957, 7, No 4, 506-508

Abstract : An investigation was made of the influence of aging at room temperatures and in a thermostatic oven (60°C, humidity 5%) on the sensitivity S and on the rog density \mathbf{p}_0 of photographic emulsions. Commerical emulsions have shown an increase in S at first, later on remaining constant. D_0 did not change. However, these emulsions are not suitable for investigations ewing to their low aging under room conditions, the influence of the stabilizer, and the absence of data on the behavior of the sensitizers at 60° C. For a Panchro-super enulsion without a stabilizer and sensitizer, the dependence of S on the exposure is expressed by a bell-shaped curve with a maximum

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46

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CZECHOSLOVAKIA/Optics - Photography

K-13

Abs Jour : Ref Zhur - Fizika, No 6, 1958, No 14656

after t~20 to 25 hours. From this instant of time, there starts a sharp rise of P_0 : For a pre-exposed emulsion, S also passes through a maximum at the same value of t, after which it drops sharply: The data obtained are interpreted as a continuation of the second naturation when maintained in a thermostatic oven. Data pertaining to the temperature of 60°C do not make it possible to predict the course of the aging under natural conditions. For the same emulsion, under room-temperature conditions, S decreased and P_0 increased up to t~5 months, after which both quantities remained almost constant.

Card : 2/2

LAVETOIN, M.

CZECHOSLOVAKIA/Optics - Physical Optics

K-5

Abs Jour: Ref Zhur - Fizika, No 4, 1959, No 6735

Author : Zavetova Milena

Inst : Czechoslovak Academy of Sciences, Prague, Czechoslovakia

Title : Interference of Two Natural Beams of Light, Passing Through

an Optically Active Medium

Orig Pub: Chekhosl. fiz. zh., 1958, 8, No 2, 229-232, 2660

Abstract: The author has investigated experimentally the suggestion of Vavilov concerning the interference of two natural beams of light, passing through an optically active medium. The author has photographed the interference pattern from two round holes 0.1 mm in diameter, whose centers were 0.51 mm apart. The holes were illuminated with monochromatic light of wavelength 436 microns from a mercury lamp. Placed before the holes were plane-parallel plates with right-handed and left-handed quartz respectively, cut perpendicular to the optical axis of the crystal. As the angle between the planes of polarization of the two beams increases, the intensity

Card : 1/2

CZECHOSLOVAKIA/Optics - Physical Optics

K-5

Abs Jour: Ref Zhur - Fizika, No 4, 1959, No 6735

of the interference pattern diminishes, and at an angle of 90° the fringes disappear completely. -- Yu.M. Kutev

Card

: 2/2

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CZECHOSLOVAKIA/Optics - Physical Optics

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Abs Jour

: Ref Zhur Fizika, No 8, 1959, 18995

Author

: Zavetova, Minena

Inst

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Title

Interference of Two Beams of Natural Light, Passing Through Media That Rotate in Opposite Directions

Orig Pub

: Ceskosl. casop. fys., 1958, 8, No 3, 312-314, 394a

Abstract

: An experiment was performed to verify the Vavilov statement, that two coherent beams of natural light capable of interference will not interfere if one of them passes through an optically-active layer, which rotates the plane of polarization by 90°, and the other passes through a layer of inactive medium of equal optical thickness. The interference pattern of Young was observed in the experiment using monochromatic light from two apertures. In front of one of the apertures were placed several plates of right-hand rotation quartz and

Card 1/2

- 143 -

CZECHOSLOVAKIA/Optics - Physical Optics.

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: Rof Zhur Fizika, No 8, 1959, 18995

in front of the other aperture the same number of plates of left-rotation quartz. Each plate has a thickness , corresponding to a rotation of the plane of polarization by 1650. In accordance with Vavilov's statement, an attenuation of the interference fringes was observed when one or two (in which case the attenuation was even greater) plates were placed limifront of each aperture, and the fringes disappeared completely if three plates were used. -- P.G. Kard

Card 2/2

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CZECH/37-59-3-3/29

Tauc, Jan and Závětová, Milena **AUTHORS:**

Photo-piezoelectric Effect in Semiconductors TITLE:

Československý časopis pro fysiku, 1959, Nr 3, pp 241-245 PERIODICAL:

The conditions for the occurrence of a photo-voltaic effect ABSTRACT: have recently been studied by the author, J. Tauc (Ref 1,8). A basic condition is some inhomogeneity in the semiconductor.

In Ref 1, it has been shown that if the width of the forbidden band changes along the illuminated region from E to E c, then an e.m.f. given by:

 $U = -\frac{1}{a} \Delta t_1 (E_{Gc} - E_{Gb})$

arises $\Delta T_1 = \sigma_1/0 - q_0/6_0$ where 6 is the total conductivity of the illuminated sample, o the dark conductivity and on and on relate to the conductivities of the electrons in the conduction band. The width of the forbidden hand in a semiconductor depends on pressure (W. Paul and D.M. Warschauer - Refs 2,3) and Price (Ref 4)

Card1/4

CZECH/37-59-3-3/29

Photo-piezoelectric Effect in Semiconductors

galvanometer.

has suggested that a photo-voltaic effect might be observed in an inhomogeneously stressed semiconductor. The measurements were carried out on single crystals of n-type germanium (Q = 30 \(\int \) cm at room temperature), p-type germanium (Q = 12 \(\int \) cm) and on p-type silicon (Q = 570 \(\int \) cm). The samples were cut perpendicular to (111) and their dimensions were 1 x 1 x 15 mm. They were etched in CP4. The contacts were made with a gallium and zinc eutectic by a method worked out by Trousil. The illuminated area was 0.2 x 1 mm and the sample could be moved along the light-spot. The pressure was applied by two edges. The sample was compressed between them and the force was measured. The maximum pressure that could be applied without mechanically damaging the samples was 4 000 kg/cm² and it acted on an area 0.2 x 1 mm. Measurements were made either with chopped light and AC amplification or with constant illumination and a

Card2/4

Photo-piezoelectric Effect in Semiconductors CZECH/37-59-3-3/29

Because most samples showed a photo-e.m.f. even without pressure, this was first plotted as a function of the location of illumination. The same function was then plotted while pressure was applied to the sample. The photo-piezoelectric e.m.f. was the difference between the two curves. It is plotted, for a sample of p-type silicon, in Figure 2 as a function of position of illumination and in Figure 3 as a function of pressure. The sign of the e.m.f. follows from Eq (1) after inserting:

$$\Delta t_1 = \frac{1}{1 + \mu_1/\mu_2} \cdot \frac{\Delta \sigma}{\sigma}$$

for X-type semiconductors, or:

$$\Delta t_1 = \frac{1}{1 + u_0/u_0} \cdot \frac{\Delta \sigma}{\sigma}$$

Card3/4

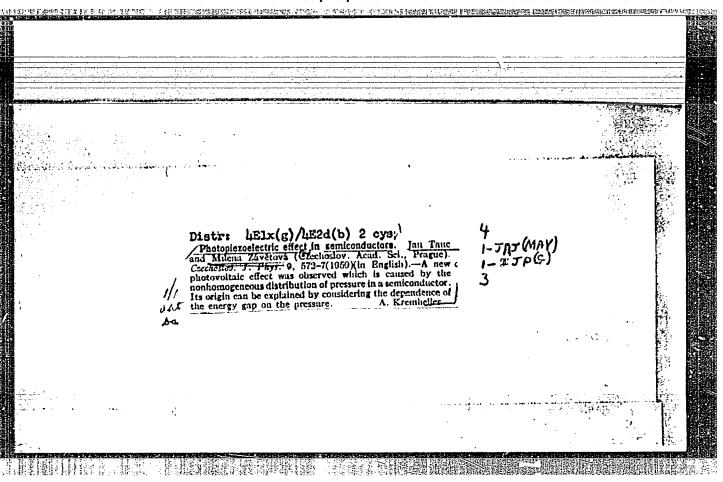
CZECH/57-59-3-5/29

Photo-piesoelectric Effect in Semiconductors

for P-type semiconductors. Here μ_1 and μ_2 are the mobilities of electrons and holes, respectively, and $\Delta \sigma$ is the change in conductivity due to illumination. Table 1 gives the sign of the e.m.f. for the illuminated end of the sample. This is an agreement with the measurements. The observed effect is of the order of magnitude that was expected theoretically. Eq (1) is proved in an appendix. There are 4 figures, 1 table and 10 references, of which 3 are Czech and 7 English.

ASSOCIATION: Ustav technické fysiky ČSAV, Praha (Institute of Technical Physics, Csechslovak Ac.Sc., Prague)

Card 4/4 :



ZAVETOVA, Milena (Praha)

Absorption edge of semiconductors. Pokroky mat fyz astr 8 no.3:131-144'63.

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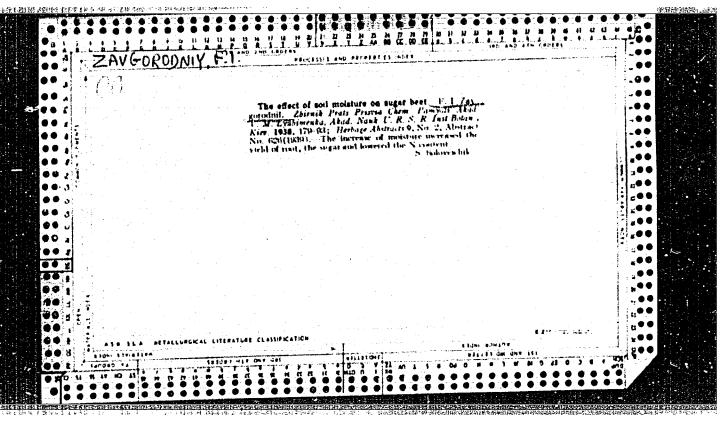
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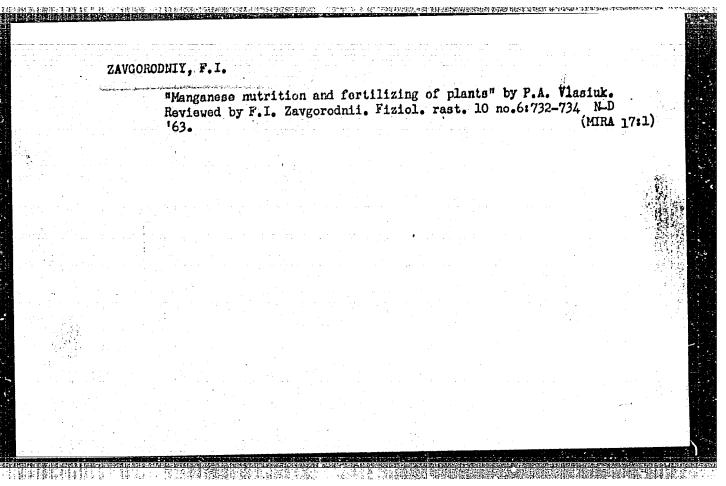
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| LAVOORO | LAVBOROUNIY, L.G. | | | | | | | | | |
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| OVNATAN | YAL, K.T., professor (Donetsk, Pushkinskaya ul. d.129, kv.63); ZAYGORODNIY, L.G., dotsent | | | | | | | | | |
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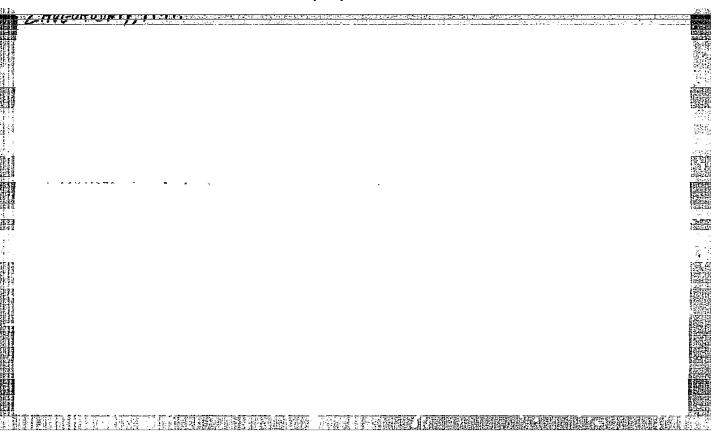
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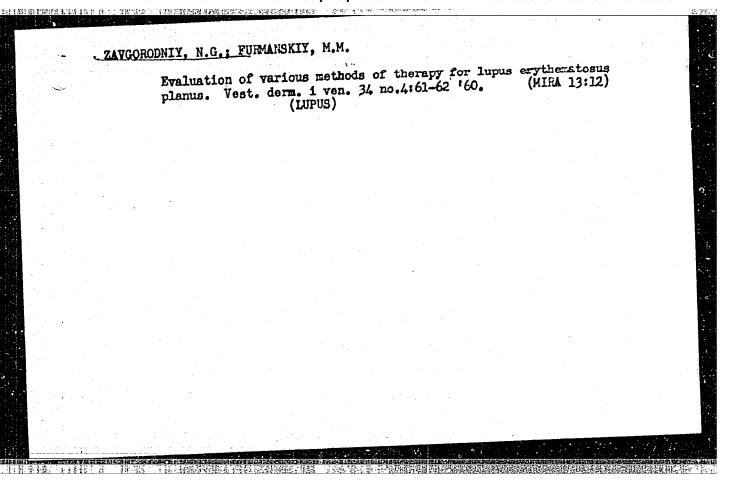
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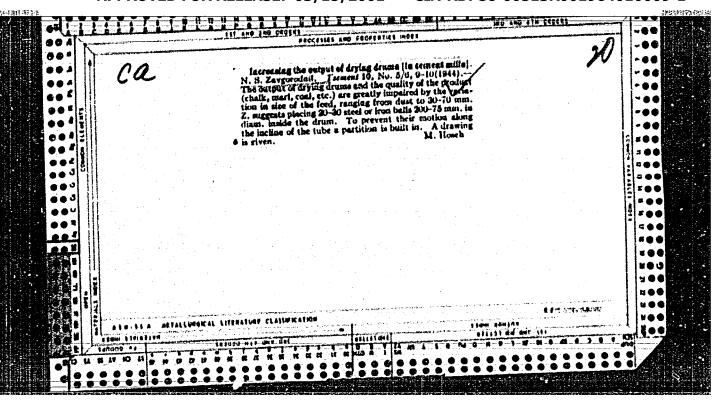


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